# GOALS AND OBJECTIVES

## Issue Identification

As part of the development of the Michigan Airport System Plan, the study team, including both MDOT staff and the Steering Committee, examined issues affecting air transportation in Michigan. The results of that examination are summarized below.

### Preservation of Endangered Airports

There are 236 public use airports currently in operation throughout Michigan. At any given time several of these facilities are under pressure from local officials and/or developers to be closed and converted to an alternate use. These pressures are most often exerted on small general aviation airports operating in or adjacent to their service communities. This is a particular concern to airports operating in Southeast Michigan where additional airport closures would threaten overall regional capacity. Generally, public use airports, from a preservation perspective, fall into one of four categories. (1) The airport is the only public use facility serving the area and should be preserved because of the access it provides to the community and access it provides the community to outside services. (2) The airport is in an area where regional aircraft capacity is stressed and the facility needs to be preserved to assure continued regional capacity. (3) The airport functions as a reliever to a large airport by allowing lower performance aircraft to utilize the smaller airport rather than the larger airport where the number of operations by high performance aircraft would be inhibited by the smaller aircraft. At very busy airports, a mix of slow aircraft and faster, heavier aircraft severely affects operational capacity. Preservation of a smaller airport that would provide an alternative to a very busy

airport would benefit both types of aircraft operations. (4) The airport duplicates service that is already provided by another airport in reasonable proximity. Where a community is served by more than one airport, efforts should be undertaken to assure the continued operation of the airport that is best suited to respond to the current and ultimate aviation needs of that community.

**Preservation of Airport Infrastructure**

MDOT's emphasis on maintaining the integrity of pavements at airports throughout Michigan should continue. As pavement ages, more and more funding resources are being focused on rebuilding and reconstructing airport pavements. Since 1987 pavement condition evaluations have been conducted at many airports throughout the state. The resulting data has provided the department and local airport sponsors with the information needed to assist in the management of pavement life and the appropriate timing of pavement rehabilitation/reconstruction actions.

**Access to Population Centers**

Significant population centers generate and attract a wide range of general aviation operations including flights for business, freight, cargo, medical emergencies, search and rescue, law enforcement, training, etc. The presence of a year-round general aviation facility to serve these trip needs is an essential component of a well rounded, full service community.

**Access to Business Centers**

Significant economic and manufacturing production centers require a wide range of transportation facilities to respond to product and people moving needs. Airports can respond to the product movement needs by permitting the rapid, timely movement of parts and products critical to economic vitality. Timely movement of executives, key personnel and clients between production centers can also be accomplished through development of general aviation airport facilities that provide the full range of services.

**Access to Tourism/Convention Centers**

In Michigan, the tourism and convention industry is a four-season, rapidly-expanding component of the state's overall economic well being. Access to tourist and convention areas, not only from within Michigan but also from throughout the mid-west and nation, can be effectively provided through properly developed airport facilities. In a number of locations, primarily in northern Michigan and in shoreline communities, the local area is as dependent on the tourism/convention industry as the Detroit area has historically been dependent on the automobile industry.

**Access to Isolated Areas**

There are seven populated Great Lakes islands that for at least a portion of the winter months are without ferry service and consequently seasonally isolated. During these periods air transportation provides the only reliable access between the mainland and these islands. In these cases island populations are dependent on aviation to provide emergency and other essential access. In 1996 both the Michigan State Transportation Commission and the Michigan Aeronautics Commission adopted an *Island Transportation Policy*. Islands affected by this include Beaver, Bois Blanc, Drummond, Harsens, Mackinac, Neebish and Sugar islands.

**Compatible Land Use and Zoning**

Historically, airports were developed in rural areas near the communities they serve. Over time, however, urban development in many instances has grown out to the airport environs. Where land use zoning is ineffective, non-compatible land uses such as residential areas, schools and churches can locate under airport approaches where the resulting noise can cause serious problems between airports and area residents. Additionally, inappropriate land uses in a runway approach have a negative effect on the type of approach, which impacts minimum weather conditions that an aircraft can safely approach an airport. Effective local airport zoning can prevent this situation from worsening by limiting development in these areas to compatible land uses such as agriculture, parks, commercial and industrial uses. Effective local airport zoning is a concern to the state. Zoning decisions are the responsibility local government and local airport zoning boards.

**Interface With Other Modes of Transportation**

Rather than viewing an airport as the beginning or ending point of a trip, it should be viewed as a transfer point from one mode of transportation to another. Not only is efficient and effective movement of people and goods dependent on an appropriately developed airport, but also on appropriate access to the airport, and efficient transfer from the surface mode to the air mode. At the most demanding airports, this may entail highways that can accommodate significant traffic volumes, public transportation services, and significant passenger and cargo movements. A variety of access enhancement actions may be appropriate ranging from infrastructure improvements to traffic control devices.

**All-Weather Airport Access**

During periods of low clouds and reduced visibility, an airport can only be used with the aid of instruments which allow flight through the poor weather conditions. By using Instrument Flight Rules (IFR) a pilot can fly an aircraft safely when cloud ceilings and visibility limits do not allow flight by visual means. Additionally, IFR allow a pilot to descend to minimum safe altitudes and allow the pilot to see the runway and land safely.

The precision of the navigational landing aids, both in the cockpit and on the ground, determines the minimum altitude and visibility a pilot can safely encounter and see the runway to land. The higher the minimums, the more frequently a pilot has to divert to an alternate airport during periods of adverse weather conditions. An airport's utility to the business community, as well as other users, is enhanced by increasing the precision of the navigational landing aids available. In Michigan, this is particularly important where the Great Lakes often affect weather conditions that impact aircraft operations. To this end, the Michigan Aeronautics Commission in 1999 adopted an *All Weather Airport Access Plan*. Features of that plan are incorporated into the ***MASP 2000.***

**Airport Services**

The range of services provided at airports varies significantly. Basic aircraft services include fuel, aircraft repair, and hangar facilities available during normal business hours. Basic pilot services include telephone, restrooms, and access to shelter.

**State Long-Range Plan**

The State Long-Range Plan (SLRP) Statewide Planning Process included a 60-member Customers and Providers Advisory Committee that assisted in the development of the SLRP. The committee's members came from a wide variety of statewide organizations, representing both those who use the transportation services and those who provide them. The Committee met and discussed transportation issues for over one year to develop the following seven statewide goals that have subsequently been adopted by the State Transportation Commission to set policy direction for transportation decisions throughout the state.

***Service Coordination -*** Create incentives for coordination between public officials, private interests and transportation agencies to improve safety, enhance or consolidate services, strengthen intermodal connectivity, and maximize the effectiveness of investments for all modes by encouraging regional solutions to regional transportation problems.

***Land Use Coordination -*** Coordinate local land use planning, transportation planning and development to maximize the use of existing infrastructure, increase the effectiveness of investment, and retain or enhance the vitality of the local community.

***Basic Mobility -*** Work with general public, public agencies and private sector organizations to ensure basic mobility for all Michigan citizens by, at a minimum, providing safe, efficient and economical access to employment, educational opportunities, and essential services.

***Preservation -*** Within the constraints of state and federal law, direct investment in existing transportation systems to effectively provide safety, mobility, access, intermodal connectivity, or support economic activity and the viablilty of older communities, and ensure that the facilities and services continue to fulfill their intended functions.

***Intermodalism -*** Improve intermodal connections to provide "seamless" transportation for both people and products to and throughout Michigan.

***Environment and Aesthetics -*** Provide transportation systems that are environmentally responsible and aesthetically

pleasing.

***Moving into the 21st Century -*** Provide transportation infrastructure and services that strengthen the economy and competitive position of Michigan and its regions for the 21st century.

**Michigan Airport System Plan Goals**

In response to the previously discussed aviation issues and the long range goals as described in the State Long-Range Plan, a series of Michigan Airport System Plan goals have been established. These goal statements can be divided into system goals and facility goals. The system goals relate to the capability of system airports to respond to air transportation needs of Michigan's residents, visitors and the business community. Facility goals relate to the establishment of minimum airport development standards that adequately describe essential airport facility characteristics.

**MASP System Goals**

***Serve Significant Population Centers -*** Provide service to significant population centers through year-round general aviation facilities.

***Serve Significant Business Centers -*** Support an airport system that adequately and effectively responds to the critical business aviation needs of the state.

***Serve Significant Tourism/Convention Centers -*** Support an airport system that adequately and effectively responds to the significant tourism/convention aviation needs of the state.

***Provide the General Population Access to the Aviation System -*** Preserve and develop the system of airports necessary to respond to basic aviation needs of the general population.

***Provide Adequate Land Area Coverage -*** Preserve and develop the system of airports necessary to provide basic land area coverage.

***Preserve Regional Capacity -*** Preserve adequate airport

capacity in each region of the state to assure continued effective air transportation.

***Serve Isolated Areas -*** Support aviation facilities capable of providing essential transportation services during those times of the year when other transportation modes are unavailable to isolated areas.

**MASP Facility Goals**

***Complete and Adequate Primary Runway System -*** Airports designated in Tier 1 of the state airport system should have a complete and adequate runway system including: a paved runway of appropriate length, width and strength; an appropriate runway lighting system; access from the terminal apron area to the primary runway; a parallel taxiway when appropriate based on airport classification and/or activity level; and clear approaches with the appropriate glide slope.

***Pavements in "Good" Condition -*** Airports designated in Tier 1 or Tier 2 of the state airport system should have pavements in their *primary runway system* in "good" condition.

***All Weather Access -*** Airports designated in Tier 1 of the state airport system should have all weather access. This includes an Automated Weather Observation System (AWOS) or equivalent, a Pilot Information System to access national weather information for flight planning, and a direct communication capability between the pilot and the appropriate ATC.

***Year-round Operation -*** Airports designated in Tier 1 of the state airport system should be open throughout the year. This means the airport should be staffed throughout the year, be able to clear the runway of snow in a timely fashion, have at least one paved runway that would not be affected by spring thaw conditions, and provide a basic level of pilot/aircraft services.

***Basic Pilot and Aircraft Services -*** Airports designated in Tier 1 or Tier 2 of the state airport system should have an appropriate range of pilot and aircraft services. These

services include telephone, restrooms, access to shelter, fuel and aircraft services.

***Airport Zoning -*** Airports designated in Tier 1 of the state airport system should have a current airport zoning plan and an active airport zoning board.

***Appropriate Instrument Approaches -*** Airports designated in Tier 1 or Tier 2 of the state airport system should have the appropriate two-dimensional or three-dimensional instrument approach system that permits reliable air operations in inclement weather conditions.

***Appropriate Surface Access -*** Airports designated in Tier 1 of the state airport system should have appropriate highway, rail and/or public transportation access responsive to both the volume and type of vehicular traffic requiring airport access.

## Relationship Between MASP Goals and SLRP Goals

The relationship between the State Long Range Plan goals and the goals of the Michigan Airport System Plan are displayed in Table 12. Although a high relationship has been identified between the two plans in many areas, the strongest relationship has been identified with "preservation" from the SLRP perspective. The strongest linkage with the ***MASP 2000*** has been identified with "serve business and tourism/convention centers." This linkage indicated that system preservation and service to business and tourism/convention centers should have a high emphasis throughout the plan.

**Table 11**
**Relationship of Michigan Airport System Plan Goals and State Long-Range Plan Goals**

| MASP Goals | State Long-Range Plan Goals | | | | | | |
|---|---|---|---|---|---|---|---|
| | Service Coordination | Land Use Coordination | Basic Mobility | Preservation | Intermodalism | Environment & Aesthetics | Moving into 21st Century |
| ***MASP System Goals*** | | | | | | | |
| Preserve Essential Regional Access | H | H | H/M | H | H | H | H |
| Preserve Regional Capacity | M | H | M | H | H | M/L | H |
| Serve Population Centers | H/M | H | H | H | H | H | H |
| Serve Business & Tourism/Convention Centers | H | H | H | H | H | H | H |
| Serve Isolated Areas | M/L | M/L | H | H | L | H | L |
| ***MASP Facility Goals*** | | | | | | | |
| Complete & Adequate Primary Runway System | L | H | M | H | L | M | H |
| Pavements in "Good" Condition | L | L | M | H | L | M | H |
| All Weather Access | M | L | H | M | L | M | H |
| Year-Round Operation | M | L | H | M | L | M | H |
| Pilot Services | M | L | H | L | M | L | H |
| Appropriate Instrument Approaches | M | H | H | M | L | M | H |
| Airport Zoning | L | H | M | H | M | H | M |
| Appropriate Surface Access | H | H | H | H | H | M | H |

Notes: "H" indicates a high linkage between the MASP and SLRP.
"M" indicates a moderate linkage between the MASP and SLRP.
"L" indicates a low linkage between the MASP and the SLRP.